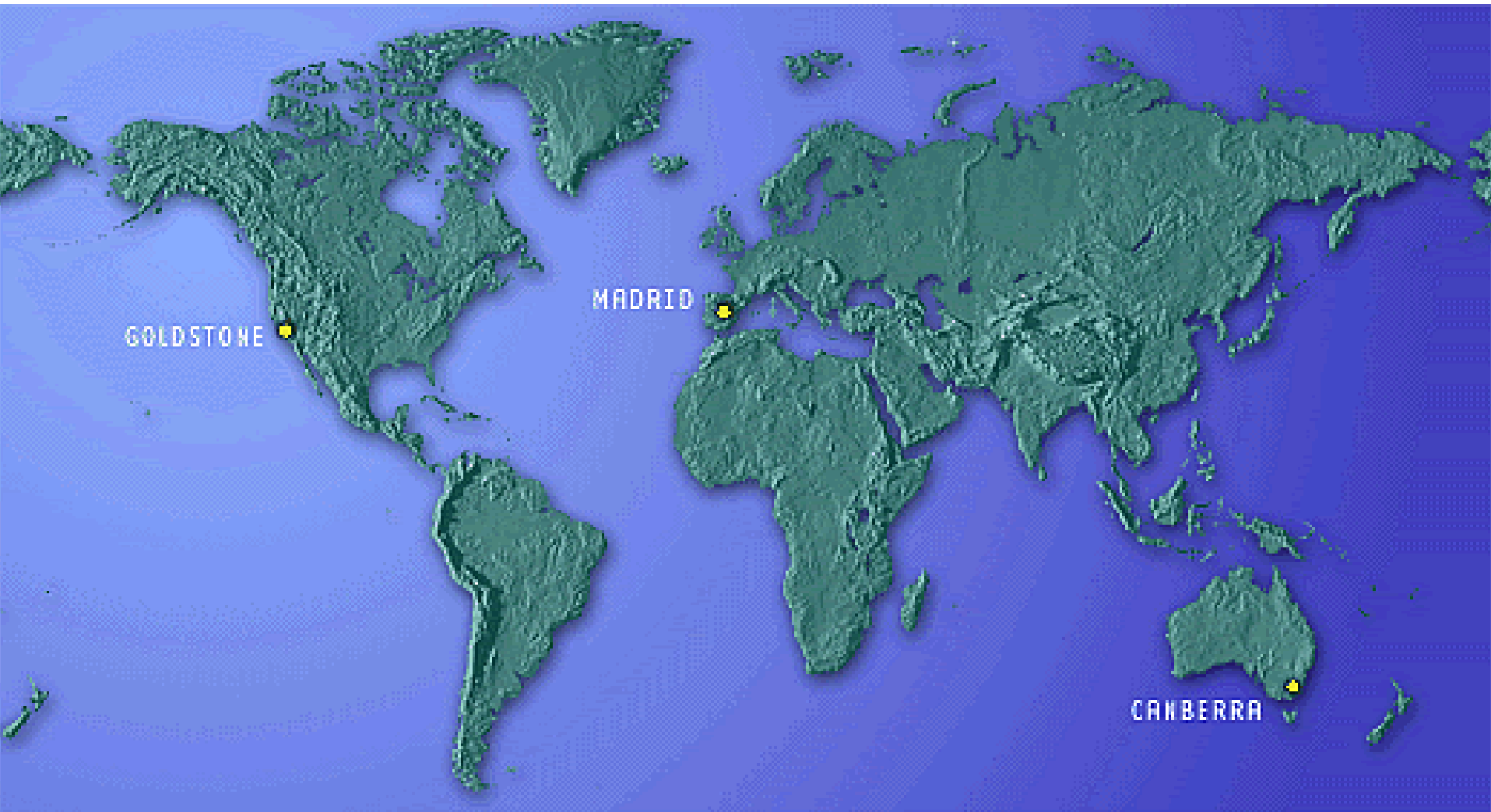


# DSN Antenna Downtime Status and Forecast



<http://rapweb.jpl.nasa.gov/planning>

# Antenna Downtime Status and Forecast

## The following are downtimes for 2008 and 2009

- ❑ DSS-24 Ka-Band Phase 2 downtime starts November 4 2008 through January 31, 2009 (weeks 45 – 5).
  - ❑ TERRA ACQ AID Demo's were scheduled for weeks 49 & 50 of 2008 and RTS demo tracks are scheduled for weeks 3, 4 & 5 of 2009 for CAS, CHDR, MUSC, SOHO, WIND and TERRA (Proficiency).
- ❑ DSS-43 downtime for Life Extension and Depot Level Maintenance is scheduled for January 5 through April 12, 2009, weeks 2 – 15
  - ❑ DTRR approved the start of the downtime.
- ❑ Complex preventative maintenance "Apollo Tie-Line Electrical Maintenance"
  - ❑ This has been scheduled for 008/1645-0630 (week 2 of 2009).
  - ❑ All conflicts have been resolved.
- ❑ DSS-26 downtime for X/KA HMT Maintenance is planned for 3 days, February 10, 11 & 12 of 2009.
  - ❑ Also scheduled during this time is a request for Ka-band Upgrade.
- ❑ DSS-14 3-day Grouting is planned for April of 2009 week 16.
  - ❑ Scheduled for DOYs 107 - 109.
  - ❑ Still a few conflicts to be resolved at conflict negotiation meeting.
- ❑ Complex preventative maintenance "Echo Tie-Line Electrical Maintenance" has been moved to start after the Apollo Tie-Line Electrical Maintenance.
  - ❑ Kepler launch is scheduled for DOY 064
  - ❑ Preparing a proposal for week 11, DOY 71/1330-72/0100 between KEPLER tracks, this downtime is 11.5 hours.
- ❑ Complex corrective maintenance "G86/G81 Transfer Switch Electrical Maintenance"
  - ❑ Will look for time in late March or April.

# Antenna Downtime Status and Forecast

## The following are downtimes for 2008 and 2009 (cont'd)

- ❑ DSS-63 downtime for EI Bearing Replacement and Depot Level Maintenance (including grouting) is re-scheduled for May 4 through June 28, 2009, weeks 19 - 26.
  - ❑ All supports have been moved to other antenna during this downtime.
  - ❑ Additional time will be added to the 2011 downtime.
- ❑ DSS-54 downtime for Ka-Band Phase 2 is scheduled for June 29 through September 27, 2009, weeks 27 – 39.
  - ❑ This downtime must end prior to the end of the fiscal year.
- ❑ DSS-14 downtime for Life Extension and Depot Level Maintenance will start October 3, 2009 and end May 2, 2010 weeks 40-17
  - ❑ Requesting an additional 2 weeks extension to end in week 19
  - ❑ Should we propose this at the IND Customer Forum or start negotiations now?
  - ❑ Most conflicts can be resolved. VGR1 ASCAL is requesting DSS-14 but will ask if it can be moved to DSS-43 or DSS-63 or to another date after week 19.

# Antenna Downtime Status and Forecast

## The following are downtimes for 2010 through 2012

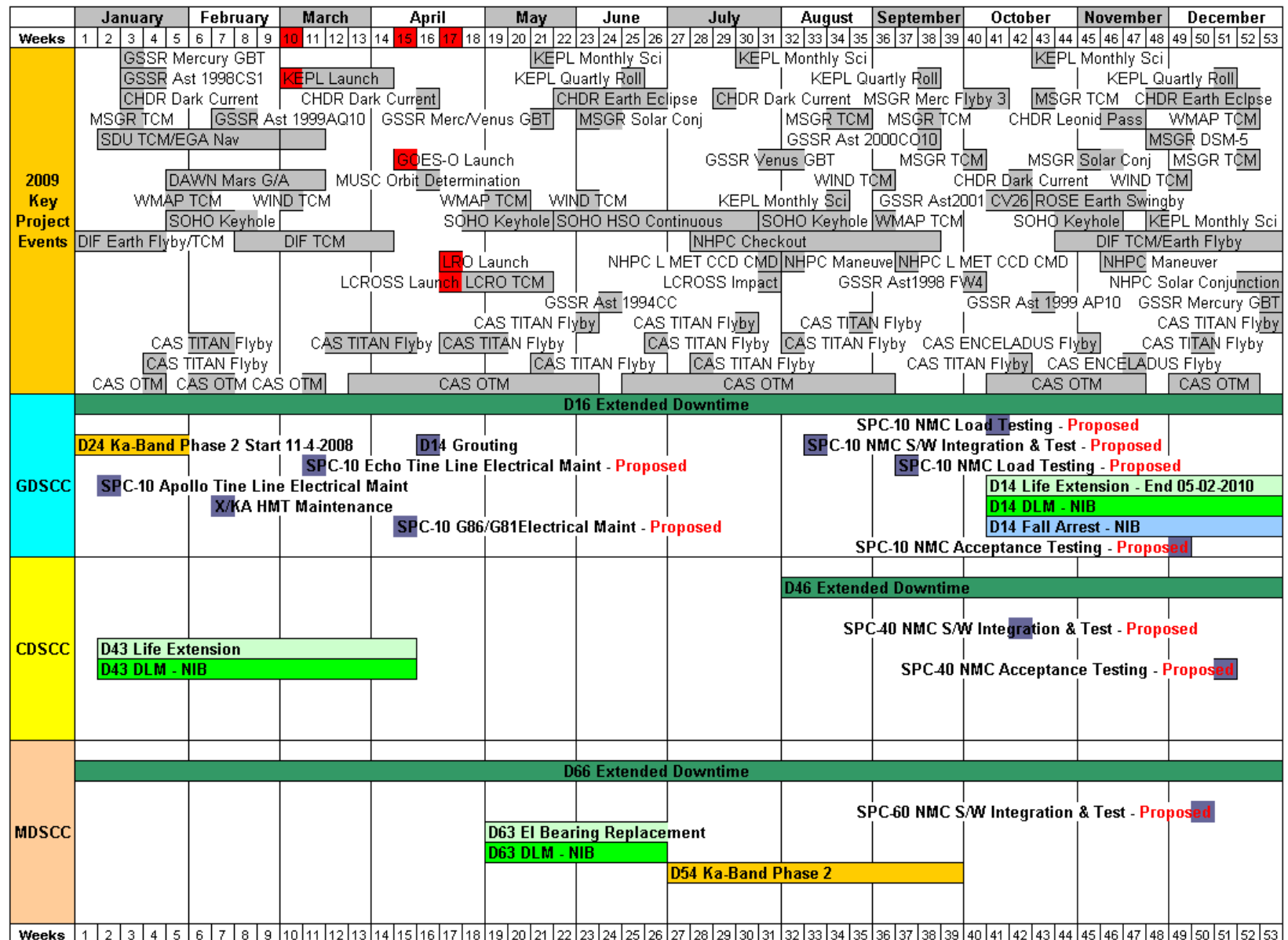
- ❑ DSS-34 downtime for Azimuth Track Replacement is scheduled February 1 through April 11, 2010, weeks 5 – 14.
  - ❑ This also includes M1-5 Mirror Alignment and M5 Support Ring Replacement.
- ❑ DSS-15 downtime for Pintle Bearing is scheduled for May 3 through June 27, 2010, weeks 18 - 25.
  - ❑ This is being proposed to start May 31 through July 25, 2010, weeks 22 – 29.
  - ❑ DSS-15 Elevation Gearbox Replacement will be scheduled NIB in weeks 22 & 23
- ❑ DSS-25 downtime for Ka U/L is scheduled for August 2 – 29, 2010 weeks 31 – 34.
  - ❑ Depot Level Maintenance will be scheduled during this downtime.
- ❑ DSS-65 downtime for Life Extension Elevation is scheduled for August 2 through October 3, 2010, weeks 31 - 39.
  - ❑ All supports have been moved to other antenna during this downtime.
- ❑ DSS-24 downtime for painting is scheduled August 24 through October 18, 2010 weeks 35 – 42
  - ❑ All supports have been moved to other antenna during this downtime.
  - ❑ There will be complete 24/7 downtime for the first 4 weeks and dayshift downtime (1400-0200) for the remaining weeks.
  - ❑ Depot Level Maintenance will be scheduled the first 4 weeks of this downtime.
- ❑ As a result of the reduction of downtime for DSS-43 & DSS-63 in 2008 & 2009, it is requested to recover that time in 2010 and 2011, local spring, summer or fall after DSS-14 RTS.
  - ❑ DSS-43 is proposed for November 2010 thru February 2011 after EPOXI encounter.
  - ❑ DSS-63 is proposed for April 4, through September 4 of 2011 weeks 14 – 35, after Messenger MOI.

# Antenna Downtime Status and Forecast

## The following are downtimes for 2010 through 2012 (cont'd)

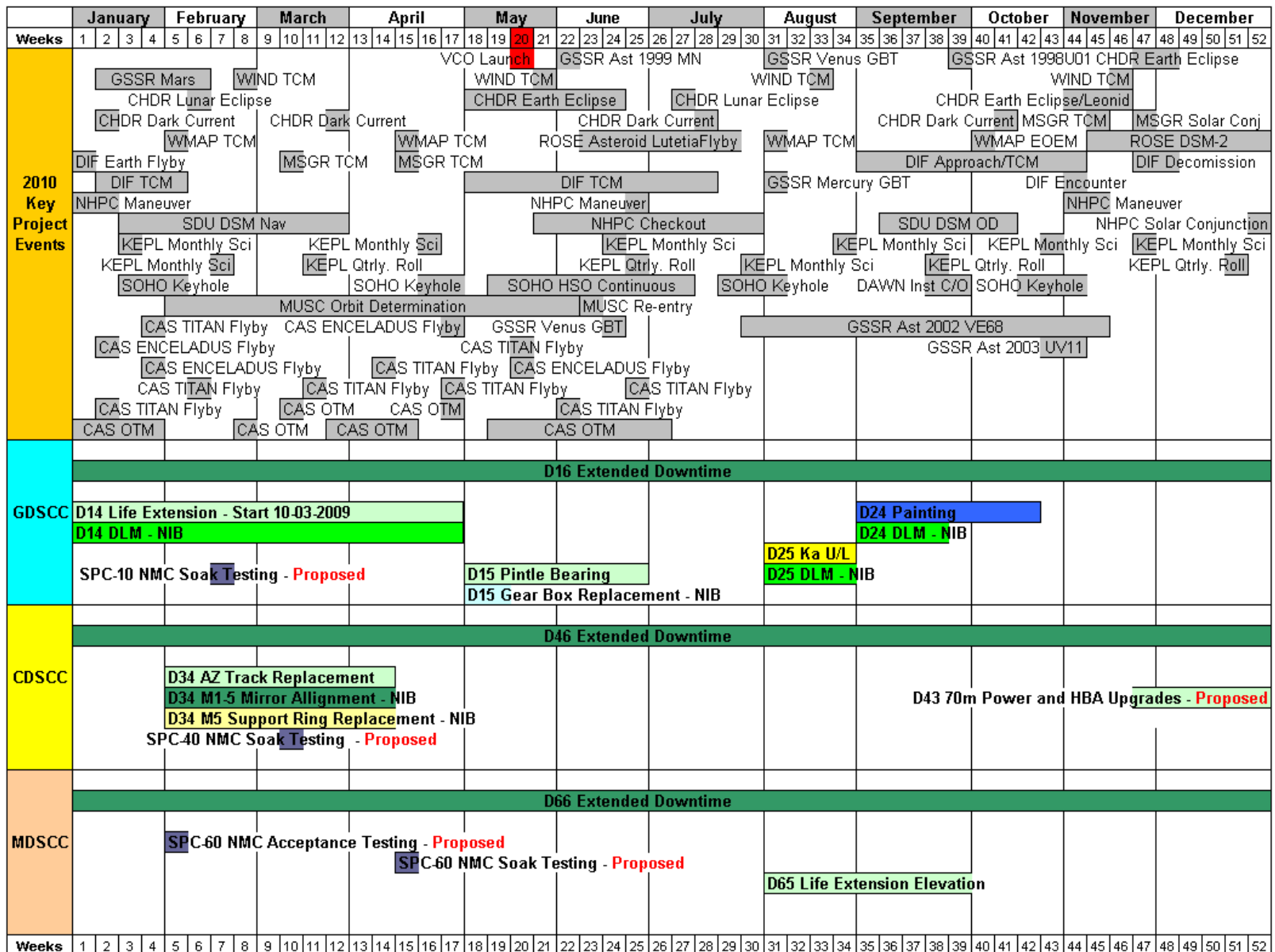
- ❑ DSS-26 downtime for Depot Level Maintenance will be scheduled during the September through November time frame in 2011 or 2012.
  - ❑ Requesting a minimum of 4 weeks for this task. Can this be done during the AZ Track Replacement?
- ❑ AZ Track Replacement is needed for DSS-24, 25, 26, 54 and 55 starting in 2012 in the spring and fall, 1 per complex.
  - ❑ Per conversation with Tim Sink, the following order of completion should be used – DSS-25, 26, 24 and 54. DSS-55 does not need the downtime right now. Will check later on when we need to do it.
  - ❑ Proposing DSS-25 for February 27 through May 6, 2012, weeks 9 – 18 and DSS-26 for August 27 through November 4, 2012 weeks 35 – 44. Need further analysis.

# Antenna Downtime Status and Forecast 2009



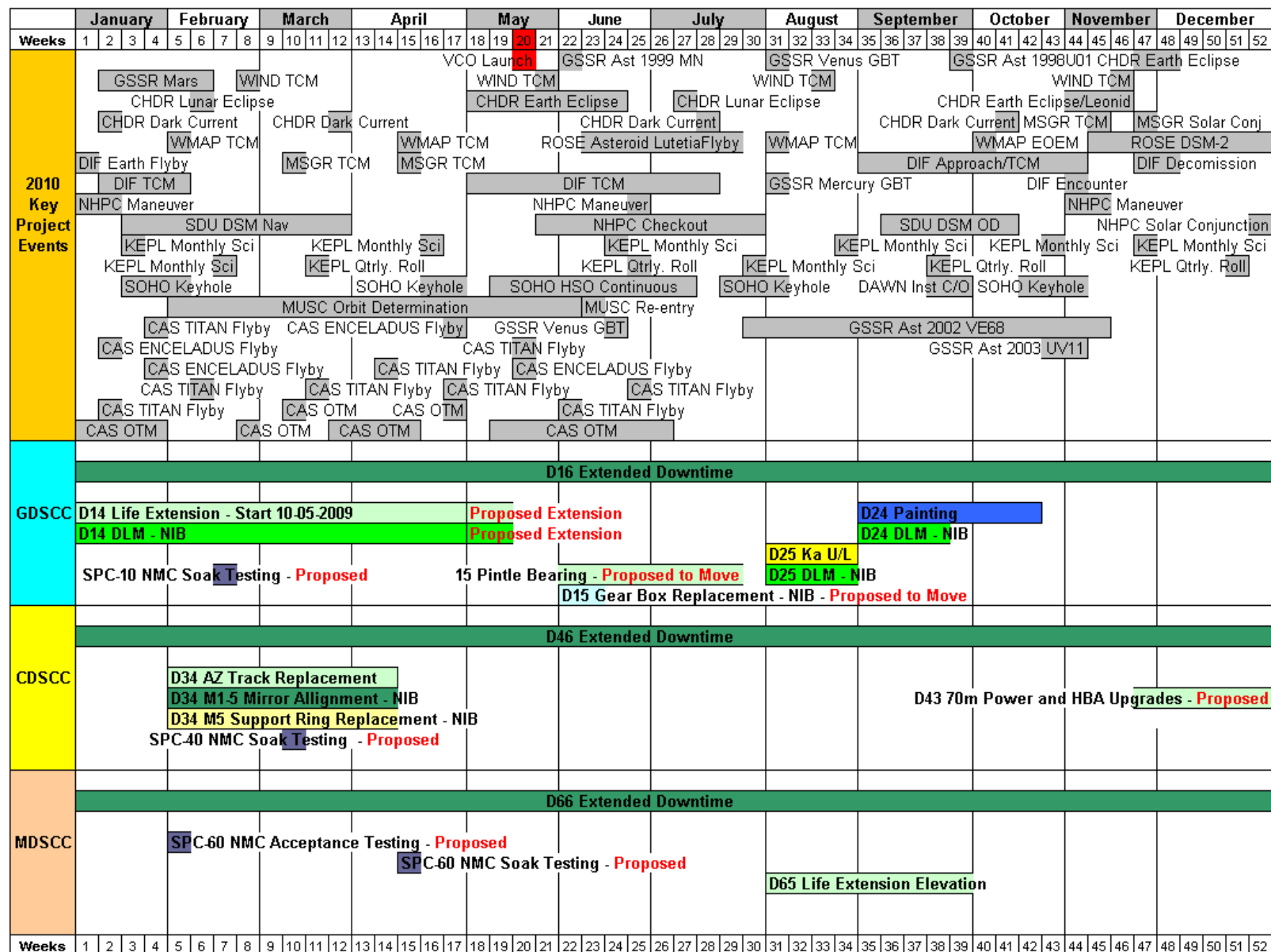
Revised: January 5, 2009

# Antenna Downtime Status and Forecast 2010



Revised: January 5, 2009

# Antenna Downtime Proposed Moves 2010



Revised: January 5, 2009



# Antenna Downtime Status and Forecast 2011

	January			February			March			April			May			June			July			August			September			October			November			December																		
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
2011 Key Project Events					SDU Tempel Enc																				GRAIL Launch/TCM								GRAIL-A LOI																			
	SDU Approach								SDU Decommission																				MSL Launch & TCM								GRAIL-B LOI															
	CHDR Dark Current								DAWN Instrument CO				DAWN Vesta Approach												DAWN Vesta Orbit																											
					CHDR Dark Current				CHDR Earth Eclipse				CHDR Dark Current				DAWN Vesta Arrival				CHDR Dark Current MSL F/S C/O 1				CHDR Earth Eclipse				CHDR Leonid																							
	KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.				KEPLMonthly Sci.																			
					KEPL Qtrly. Roll								KEPL Qtrly. Roll								KEPL Qtrly. Roll				KEPLMonthly Sci.				KEPL Qtrly. Roll																							
	SOHO Keyhole								SOHO Keyhole								SOHO Keyhole								SOHO Keyhole				SOHO Keyhole																							
	MSGR TCM				MSGR MOI								MSGR TCM								JUNO Launch & TCM				JUNO TCM				JUNO HV Checkout																							
					MSGR Solar Conjunction								MSGR TCM								MSGR TCM								MSGR TCM																							
	MSGR TCM				MSGR TCM																																															
	NHPC Maneuver				NHPC Checkout				NHPC Checkout												NHPC Maneuver				NHPC Maneuver				NHPC Solar Conjunction																							
	ROSE DSM-2				ROSE DSHM Entry																																															
	WIND TCM								WIND TCM								WIND TCM								WIND TCM				GSSR Asteroid 2000 YA																							
	GDSCC	D16 Extended Downtime																																																		
CDSCC	D46 Extended Downtime																																																			
	D43 70m Power and HBA Upgrades - Proposed																																																			
MDSCC	D66 Extended Downtime																																																			
	D63 70m Power and HBA Upgrades & Life Extension - Proposed																																																			
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52

Revised: January 5, 2009

# Antenna Downtime Status and Forecast 2012

	January				February				March				April				May				June				July				August				September				October				November				December							
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52
2012 Key Project Events	DAWN Vesta Orbit				MSGR EOPM																												SOHO EOEM																			
	DAWN Vesta Depart																								DAWN Vesta Thrust																											
	WIND TCM				GSSR Ast 2000 ET70				WIND TCM												WIND TCM				KEPL Qtrly. Roll				WIND TCM																							
					KEPL Monthly Sci.KEPL Qtrly. Roll								KEPL Monthly Sci.KEPL Qtrly. Roll								KEPL Monthly Sci.				KEPL Monthly Sci.																											
	KEPL Monthly Sci.								KEPL Monthly Sci.								KEPL Monthly Sci.								KEPL Monthly Sci.																											
	GSSR Ast Eros								JUNO DSMs DDOR								JUNO DSMs DDOR				JUNO DSMs/DDORs/TCMs								JUNO Per Maint																							
	JUNO Cruise																																																			
	CHDR Dark Current								CHDR Dark Current												CHDR Dark Current								CHDR Dark Current																							
					GSSR Mars				CHDR Earth Eclipse												CHDR Earth Eclipse								CHDR Leonid																							
	MRO Relay																																																			
	GRAIL A LOI/TSF Phase								GRAIL A/B Science																								GSSR Ast 1998 ST49																			
	GRAIL B LOI/TSF Phase																				GSSR Ast 2002 AM31								GSSR Ast 4179 Tout																							
	GSSR Ast 1991 VK												GSSR Ast 1998 HE3								NHPC Delta Dor				NHPC Mane				NHPC Beacon																							
	NHPC Beacon																																																			
	NHPC Solar Conjunction																				MSL TCM								NHPC Pluto Flyby Rehersal				NHPC Solar Conjunction																			
								MSL FSW Update								MSL EDL																																				
MSL INST C/O 1				MSL FS Checkout 2								MSL TCM				MSL Approach								MSL Surface Ops																												
MSL TCM								MSL INST Checkout 2												MRO MSL Support																																
GDSCC	D16 Extended Downtime																																																			
									D25 AZ Track Replacement - Proposed																				D26 AZ Track Replacement - Proposed																							
CDSCC	D46 Extended Downtime																																																			
MDSCC	D66 Extended Downtime																																																			
Weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52

Revised: January 5, 2009

# Antenna Downtime Status and Forecast

## DSN Resource Implementation Planning Matrix By Subnet

Complex	Station	Subnet	S-Band		X-Band		Ka-Band		Ka Phase 2
			Down	Up	Down	Up	Down	Up	
40	DSS-46	26M*	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-27	34HSB	✓	✓	N/A	N/A	N/A	N/A	N/A
10	DSS-24	34B1	✓	✓	✓	✓	N/A	N/A	02/01/09
40	DSS-34	34B1	✓	✓	✓	✓	✓	N/A	02/01/09
60	DSS-54	34B1	✓	✓	✓	✓	✓	N/A	09/27/09
10	DSS-25	34B2	N/A	N/A	✓	✓	✓	08/29/10	N/A
10	DSS-26	34B2	N/A	N/A	✓	✓	✓	N/A	N/A
60	DSS-55	34B2	N/A	N/A	✓	✓	✓	N/A	N/A
10	DSS-15	34HEF	✓	N/A	✓	✓	N/A	N/A	N/A
40	DSS-45	34HEF	✓	✓	✓	✓	N/A	N/A	N/A
60	DSS-65	34HEF	✓	✓	✓	✓	N/A	N/A	N/A
10	DSS-14	70M	✓	✓	✓	✓	N/A	N/A	N/A
40	DSS-43	70M	✓	✓	✓	✓	N/A	N/A	N/A
60	DSS-63	70M	✓	✓	✓	✓	N/A	N/A	N/A
N/A = Capability Not Planned      xx/xx/xx = Capability Date Recently Changed      As of: 01/05/09 ✓✓✓ = Capability Recently Exists      ✓ = Capability Exists      * = To Be Decommissioned									